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SOCIETY OF ARTS.

FRIDAY, APRIL 29th, 1853.

EIGHTEENTH ORDINARY MEETING,

Wednesday, April 27th, 1853.

THE Eighteenth Ordinary Meeting of the Society was held on Wednesday, the 27th instant, Sir John P. Boileau, Bart., Vice-President, in the chair.

A Paper was read by the Very Rev. the Dean of Hereford, entitled, "Remarks on the Importance of giving a Self-supporting Character, as far as possible, to Schools for the Labouring Classes; and the Means of doing so."

The Dean of Hereford commenced by stating that, in compliance with a request which has been made to me by the Council of this Society, I appear before you this evening for the purpose of addressing to you a few remarks on the subject of popular education. The results of my own experience and reflections on this subject have, of late, been so frequently submitted to the public, that I must begin by assuring those who are at all conversant with the progress and position of the question, that I have no new principles to advance; the substance, at all events, the drift of the remarks I shall make, will be found in what I have already published. I should therefore have insisted on its being more profitable for you to listen to some other experienced person in matters of education, had not the request been urged upon me in such a manner, that I could hardly consider myself at liberty to refuse.

I have no intention of taking any general or comprehensive view of the subject: on an occasion like the present, remarks of such a kind would be ill-timed, and to so practical an audience would appear unprofitable. I will strictly limit myself to those particular points which have been announced as the subject for the evening, and upon which I can bring my own experience to bear, and also that of other practical men engaged in the work of education, whose testimony in support of the principles I am advocating, is, I think, worthy of your attention.

I shall lay before you my own conclusions as to how far the principle of self-support is applicable to national education. I shall have to tell you in what sense I myself understand this principle,—how I conceive it may be brought to bear, what value I attach to it; in a word, what it is, and what it is good for.

I have been frequently quoted as having demonstrated the success of this principle. This, however, needs some explanation, as to what is meant by it.

The success of the schools established at King's Somborne, in Hampshire, demonstrated in the most satisfactory manner, the adequacy of the principle to effect the objects I myself had in view. But I do not consider that their success did prove the adequacy of the principle of self-support for certain other objects with which it was never connected in my own mind, and which must be provided (excepting in the most favoured localities) by other means.

In order to make this clear to you, it will be better at once to enter into particulars.

The expenses of a school are divisible into two distinctly marked parts. First, there are those expenses which are incurred antecedently to the schools being set to work: I mean the expenses incurred in purchasing the site, in building the school and teachers' houses, in providing suitable school-fittings and apparatus, and in educating and training the teachers. These expenses also are, to speak generally, incurred once for all.

The other kind of expenses are incurred annually: they are permanent expenses—they represent the cost of keeping the school at work, as the former represented the cost of starting it; they consist of the salaries of teachers, of the cost of books and other needful apparatus as the school progresses, of the outgoing for repairs, and a few other items of this kind.

Now it was to these latter permanent annual expenses (which I beg to observe have always been the most difficult to meet), that I endeavoured to apply the principle of self-support; and to this extent the King's Somborne schools, as you will see from the statistics I shall quote, have been, and continue to be, thoroughly successful.

In the case of Somborne, the first class of expenses to which I alluded were met by liberal assistance from the Committee of Council on Education, from the National Society, the Diocesan Board at Winchester, and by subscriptions from myself and others connected with the property of the parish.

From the first I determined to spare no expense in anything connected with the well-working of the schools, having an entire confidence in the principle, that this would, in the end, be the best economy. These views were justified by the result, and the success of the experiment; and although a considerable sum, as regards this first class of expenses, fell upon myself, this, thrown over a few years, made the school much less expensive to me, as clergyman of the parish, than the ordinary village school.

This class of expenses, however, ought not to be left or thrown upon private individuals; but every parish or school district ought to be enabled to charge themselves legally with it.

The property of the parish of King's Somborne was rated at about 6000*l.* per annum. Taking this first necessary outlay at 900*l.*, and supposing there had been the power and disposition on the part of the ratepayers to charge themselves with it—throwing it over a period of thirty years, as is done in the case of building workhouses—how very light a burthen this would have been, considering the advantages resulting from it! And although I should at that time, even if there had been the power, have despaired of getting the ratepayers to agree to it, yet, with the light which has broken in upon them, through the school itself, during the last ten years, this question assumes a very different aspect.

You see, then, my object was a limited one; and in speaking of the King's Somborne school as a self-supporting one, the word "self-support" is intended to apply to the working of the school after it is once fairly established.

But my success in attaining it has been spoken of as if it had demonstrated the possibility of

self-support in the widest sense, in which the word would be made to include all the preliminary expenses : and upon this has been founded an argument, that the aid of the State in educational matters was unnecessary, and, if unnecessary, of course mischievous. Now, as my schools did not prove this—and in fact, under the circumstances, could not be intended to do so—and as my opinions are strongly at variance with any conclusion which would reject the aid of the State, I thought it necessary to direct your attention as soon as possible to this distinction.

But as the whole value of my experiment depends upon the extent to which such schools can be raised up in other localities, I will now proceed to give you some account of it.

The parish contained, by the census of 1841, a population of 1,125, of whom about 800 lived in the village, and the rest were scattered over an area of about 8,000 acres. The farms were large, many of them having been formed of two, three, or four occupations, making the case proportionably less favourable to the success of the plan I had in view. The parish is a purely agricultural one, and in a purely agricultural district ; and at that time, and for a long period of years, the Poor-rates had been extremely heavy, giving it a bad notoriety in that respect over the neighbouring parishes.

There was, therefore, nothing in the circumstances of the neighbourhood, or parish, nor in the history or character of the people, to predispose them towards making greater sacrifices for their children, for the purposes of securing some serviceable degree of education, or of enabling them to do it, than would be found elsewhere.

My aim from the first was to unite in the same school the children of the labouring classes and of their employers, being persuaded that the only means by which the children of the latter, in our rural districts, were likely to get an education equal to their wants, was by bringing it home to them at a cheap rate ; and that if this were done, they would, in the end, gladly avail themselves of it, notwithstanding any prejudice against the mixture of classes, which I knew to prevail. This union of classes also was necessary to give the plan any chance of success, and the result has proved, in a most convincing manner, that where the instruction is good, and such as to meet the requirements of the parish and neighbourhood, that all difficulties may be overcome.

The schools were built on plans recommended by the Committee of Council on Education, and were opened in October, 1842. The rates of payment were, for the children of labourers, 2*d.* and 1*d.* per week ; 6*s.* a quarter for the children of the employers of labour, and for those known to be able to pay it, living within the parish, and 10*s.* for a similar class living in other parishes.

The annual amount of school payments for the first eight years from its opening, are as follows :

Payments, including books, &c.			Books.		
1st Year, from Mich., 1842,	to	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Mich., 1843		56 17 3	Of this...	7 5 5	
2nd do., to Mich., 1844	68 11 7	"	8 0 5	
3rd do.,	1845	84 6 1	"	11 5 3	
4th do.,	1846	93 5 5	"	15 8 0	
5th do.,	1847	145 6 6	"	24 8 1	
6th do.,	1848	146 3 7	"	30 2 1	
7th do.,	1849	164 16 7	"	39 2 7	
8th do.,	1850	174 4 9	"	41 1 8	

These figures are a most satisfactory proof of the success of the schools, both as to numbers and the classes of life from which the children came. The greatest increase in any one year is 52*l.* 1*s.* 1*d.*, between Michaelmas, 1846, and Michaelmas, 1847, and this is owing to the improved process of teaching given to the school, by the introduction of pupil teachers, and other advantages arising from the Minutes of the Committee of Council on Education, issued in that year ; and also to the impulse in favour of the schools both in the parish and district, arising from the practical conviction which had now been brought home to the parents, that their children were getting a really good and serviceable education. You will never prove this to them as a matter of theory ; it can only be brought home to them by experiment.

The amount paid for books and other school necessaries, it will be observed, increased year by year, and at the end of the eighth year it is five times the amount paid in the first ; in fact, so soon as the children became thoroughly interested in what they were learning, all difficulties were at an end, and the parents cheerfully and readily did all that could be expected of them.

It was the introduction of the reading books of the Irish Board of Education, at the cheap rate at which they are to be had, which led to the purchase of books to this large amount in these schools.

For the first two or three years the books purchased were almost entirely the ordinary reading books ; this led to a taste for the introduction of others, and of cheap maps, both into the schools and into their homes, and for every 10*s.* spent in the purchase of cheap school-books, it has led at least to 20*l.* being spent on other books, thus opening out a market where none existed before ; so that I very much doubt, whether even on trading principles, the London publishers are altogether right in the views they have taken up as regards the books published by the Irish Board.

The amount of payments in some measure denotes the numbers attending the schools, but it will not be uninteresting to add a few more particulars on this head.

The schools opened at first with 38 children, which, at the end of the year, increased to 106 ; and I perfectly recollect that, during this first year, more than 30 children were taken away or sent away by myself, because they would not conform to the rules ; these, almost without exception, were glad to be allowed to return.

At the end of the 2nd year ... 110 No great increase.
" " 3rd " ... 144
" " 4th " ... 158

And at Midsummer, 1850, they had gradually increased to 219

Of these, 31 were paying 10*s.* per quarter, and came from other parishes—many from a considerable distance ; and there were as many as 20 lodging in different respectable cottages in the village, some from Monday morning to Friday night, going home for Saturday and Sunday. There were 24 paying 6*s.* per quarter, sons of tradesmen and employers of labour in the village ; and 164 paying 2*d.* and 1*d.* per week.

At Christmas, 1850, my connection with these schools terminated, and my successor in the living not entertaining the same views as myself, I was apprehensive they might suffer from

this circumstance. He, however, agreed not to interfere with them, and the letter which I am about to read to you will show his change of opinion on becoming really acquainted with the education given, and the manner in which the schools were conducted.

Of the master and mistress I had the highest opinion, both as to their abilities as teachers, and on their zeal and industry; and in both my expectations have been fully realized. I visited the schools in March last, and was very much pleased with their general appearance. The amount of annual payments up to the present time shows, that the children, in numbers and position, are much what they were when I left the parish.

The master and mistress are both certificated teachers by the Committee of Council, and receive augmentation of salaries on that account. The letter from the Rev. Mr. Nicoll, is as follows :

King's Somborne, April 6, 1853.

MY DEAR SIR,—According to promise, I send you a statement of the present condition and prospects of the King's Somborne Schools, together with my impression, derived from the experience of upwards of two years, since I succeeded you in the parish, as to the practical working of the system of education which you had established, and for eight years so successfully carried out. You are aware that I came here with some slight degree of *prejudice* against that system, and of apprehension as to the principles on which it was founded; being not quite satisfied that I could conscientiously support it, though readily engaging not to interfere with it. You are also aware that a very short time convinced me of the needlessness of all doubt and hesitation, and happily and completely converted me to a sense of its excellence.

It has afforded me much pleasure to be assured by you, that, in the visit which you lately paid us, you found the schools in which you yet retain so warm an interest, in a satisfactory condition; and I have every reason to hope and believe that they will continue to maintain their high character and efficiency, and be a great means of extending the system adopted in them, and found to work with so much success, gradually and generally throughout the country. Indeed, in this latter respect, they have already exercised much influence, through the many pupils that have gone forth to other schools, especially during the last two or three years; and I am constantly receiving applications from various and distant parts of the country for a boy or girl of sufficient age and attainments to introduce the benefits of our system. This assistance has been always granted to the full extent of our means of supply, which, indeed, in one or two later cases, as you are aware, have not been adequate to the demand. Of those who have been sent out from the King's Somborne Schools, in whatever capacity, the accounts received have invariably been most favourable. Our numbers are still maintained, and we have, at present, some very promising children of both sexes, who will, I feel confident, do credit to themselves, and to the Institution in which they are receiving their education.

So much for the state and prospects of our schools. With regard to the general character of the system of instruction and management pursued therein, every year is testing its merits, and demonstrating its value; and I feel sure that the more extensively it is known, and the better it is understood, the more it will be appreciated.

In reference to one peculiar feature in this system—its "self-paying" principle—that has been, I believe, for many years completely successful; at all events, I can state that, after paying every expense connected with the schools, a balance has remained in hand at the end of each year that I have been in the parish, and had the management of them. Before I came here, I had often heard of attempts having been made to establish schools on the self-supporting principle, and to introduce it into those already in existence; but almost invariably with the same unsatisfactory issue—partial success, if not total failure; though I believe, within the last year or two, some nearer approach to a successful result has been effected in a few instances. That the scheme is quite practicable, our own schools here, which owe their origin and their reputation to yourself, are a proof, where it is carried out to its fullest extent, and with the happiest effect. Other schools may, and no doubt in the course of time will, attain the same measure of success; but it must be by raising the present standard of education, by making the instruction offered of such a kind, so far in advance both in quality and practical usefulness of the usual routine which has so long prevailed in our national schools, as to induce parents not only of the lower, but of the middle classes—not alone the employed, but the employers—to avail themselves of its advantages for their children. That this would be the effect I have no hesitation in expressing my conviction, from my own experience, since I have been resident in this parish. I have found, also, that the rule by which the children are required to purchase every book, &c., which they use (a rule absolutely essential towards making a school self-supporting), is still working well, and appears to afford no ground of objection or complaint, nor to have acted as a means of *exclusion* in any instance that I have heard of: so far from it, I quite believe that the labouring poor generally, in the parish, justly and warmly appreciate the efforts which have been made in favour of education for their families; and that many parents, even of the poorest, do, and many more, if necessary, would readily and cheerfully consent to make some sacrifice of their already too scanty means, to secure for their children the benefits which our schools hold out to them.

I would add a remark upon one other point only in reference to our system, upon which I have reason to believe some misunderstanding exists amongst persons who have not had an opportunity of making themselves acquainted with its nature and character, either by personal observation or from the Reports of the Government Inspectors. I allude to the opinion prevailing in some quarters, that the course of instruction pursued in these schools does not include religious teaching; that it is restricted solely to subjects of "useful knowledge," to the acquisition of physical and general science—in a word, to what is commonly called a "secular education." Those who entertain this erroneous supposition have only to remember that Her Majesty's Inspectors require, at their annual visits, a sufficient degree of Scriptural information from the children generally; and that from the upper classes in all Church of England Schools some acquaintance with her doctrines and formularies is, in addition, expected; and, I believe, that on no occasion have they had reason to complain of any deficiency here in this respect. I have also continued to follow the excellent plan adopted by yourself, of receiving the senior children at my own house on the Sunday evenings; and I do not hesitate to say, that all who have visited our schools, and taken the trouble to ascertain for themselves, will testify that it is possible to combine

a high degree of general useful knowledge with the principles of a sound religious education.

I am, my dear Sir,

Very sincerely yours,
CHARLES NICOLL.

The author then proceeded to describe some of the results already obtained in other schools where a more or less similar system had been adopted ; the influence exerted by the Government Boards of Education ; and lastly, the nature and effects of the numerous and large charitable institutions designed to advance education, but too frequently, from the manner in which they are managed, tending rather to retard than to promote it. In conclusion the Dean observed :

" I will now bring these remarks to a close. I have given you facts connected with my own experience, and also with that of other practical men. It is for you to judge what these facts are worth, and how far they can be a guide to others in attempting to establish schools in the districts in which they are interested ; but you must always bear this in mind with respect to the agricultural districts, that, generally speaking, unless the children of employers and employed can be brought together in the same school, it will be impossible to support schools for the separate classes ; and, whether the farmer and the great body of the employers of agricultural labour are to remain behind the rest of the community in the matter of education, mainly depends on our being able to establish such schools as I have been recommending.

" Since my undertaking to read a paper before your Society on this subject, I have been asked the question, ' What business has the Society of Arts with education ? ' This question may imply some degree of censure for your doing so, and I am not sure that it did not—I anticipate something of the kind may arise—but whether it does imply censure or not, I conceive it to be a matter of the greatest public importance that you have done so ; and I also feel that you have, in a greater degree, perhaps, than any other existing body, the power of giving an impulse to that element in our popular instruction (I mean its having a practical and industrial character), the want of which has for many years made it so fruitless, and gained for it so little hold on public opinion.

" Certainly a much more sensible question to have asked would have been, ' In what way can the Society of Arts not promote the cause of education ? ' There are so many ways which must occur to yourselves in which you can do this, and in which you are better judges than myself, that I will not venture to suggest them.

" In the letter lately circulated by your Secretary, various and most important ways are suggested ; the letter of Mr. Harry Chester some time ago gave me useful hints on this subject : but on these points, however tempting, I will not venture to enlarge. I will only express a hope, that in your efforts to promote the cause of education all over the country, you may not lose sight of those self-supporting principles, which appear to me so important in a social point of view, in raising the character of the people, and so necessary to the foundation of any system likely to be permanent, or in the management of which they will take an interest."

The EARL OF HARROWBY, on rising to propose a vote of thanks to the Dean for his deeply interesting paper, remarked, that four or five years ago he, in common with many others, read with great interest the Dean's papers, describing the scheme he had carried out so well at King's Somborne. He was struck with the plan, as it seemed to meet two or three difficult questions in regard to education. The first was—how to get the funds ; and the next was—how to educate the children of the middle classes, where they were thinly scattered over the surface of the land. The plan they had heard described seemed to meet these difficulties. By thus combining, in one plan, the education of the middle and poorer classes, the funds were raised from the former, who could pay liberally, to aid in providing a superior education for the latter. Another difficulty was—how to provide a good education for the middle classes. This was a question which every one must feel pressing with more urgency every day. Unlike the poor, who were generally willing to receive assistance, the middle classes were accustomed to pay for all they received, and anything which might appear eleemosynary in its character was highly repulsive to them. It was a difficulty which pressed in a variety of ways, and he, as a member of a Board of Guardians, as a magistrate, and as a landed proprietor, had often felt it. The middle classes were jealous as to what was done for the poor in the way of education. As regarded workhouse schools, Guardians were unwilling to do much, on the ground that the pauper children were being educated beyond those of the Guardians. Now, if they could get the farmers, and members of the middle classes to contribute to the support of these schools, and send their own children to them, they would feel an interest in them ; their children would also get a better education at a less cost than elsewhere, and the difficulty would be removed of their unwillingness to aid in the education of the children of their workmen. It was not merely a question of jealousy : the children of small tradesmen and farmers were very often not intended to follow the trades of their parents, but for some other professions, and the children of the poor, in getting more educated, were supplanting them. In the present day, when a youth was wanted for any situation requiring good character, good handwriting, or responsibility, it was not to the middle classes, but to the sons of labouring men educated in one of the good schools of this kind, that application was made. Thus the question became to the middle classes a most important one. This was no reason, however, for not educating the poor, but only for endeavouring at the same time to preserve the position of the middle classes. Now, the Dean's plan just seemed to meet the case ; by educating, in one school, the son of the farmer or tradesman and the son of the labourer, both would receive a good education, whilst the fact of the former being able to remain longer at school would give him the advantage which would preserve the relative social position of the two. There were, however, two or three practical difficulties. Where there was a population of 1,100, with a fair proportion of tradesmen and farmers, they had materials for a self-supporting school ; but where, as in a large portion of country parishes, they had only from 100 to 500 persons, it was a much more difficult matter. Himself, and a few gentlemen in Staffordshire, had associated together for the purpose of trying the experiment. They established four schools, and got four good masters from the Battersea Training School. These, planted in four different places, were now doing good work, and were drawing farmers' sons into the schools. In one, there were twenty farmers' sons, and in the lowest, ten. He could

not but feel that it was far from a selfish spirit which caused the local clergy occasionally to object to the sons of the farmers in their parish being educated in the diocesan schools of the neighbourhood; especially when it was considered that many of these clergymen were at great expense and trouble in promoting and improving their own parish schools. He fully agreed with the remarks of the Dean in regard to the evil influence of endowments; but in these cases they were obliged to assist by means of small endowments. They were not quite self-supporting, but were giving a better education than was formerly done at ten times the cost. In addition to the direct good of the education they were giving, they were exercising an influence in creating the expectation and demand for education; just as the establishment of improved lodging-houses had excited a general demand for an improved state of things in that respect. The question of payment by rates was considerable difficulty; he did not see how it could be done in one place and not in another. He fully concurred in the Dean's remarks as to the advantages of Inspectors; gentlemen who would not dictate, but by their advice and suggestions disseminate higher and nobler views of education than were common. Then they must not shut their eyes to the difficulty of convincing many farmers and others that anything beyond reading and writing were necessary to education. In a country parish, he had recently had to call the Duke of Sutherland to his aid in getting rid of an old blind pauper as a schoolmaster, the idea of the parish authorities being that a good teacher would teach the children of the poor more than their own children were learning. In one large London parish, a physician who sat at the Board of Guardians recently said, on a similar occasion, "What! will you teach these children Greek?" alluding to some extracts from Xenophon contained in the examination paper for a schoolmaster; and added, "Do your children learn French, German, mathematics, &c.?" By this means such an outcry was raised, and the current ran so strong, that they were obliged to abandon the idea of placing the school under the supervision of the Government Inspectors. He would now conclude by expressing his deep obligation to the Dean for the light he had thrown on a question which involved not simply the education of England, but through England, as a centre of influence, the future destinies, of the world.

HENRY COLE, ESQ., C.B., rose to second the resolution. He also begged to move, that as the evening was far spent, and the subject was one of so much importance, that the discussion be adjourned until next meeting.

The Rev. J. H. HINTON seconded the resolution, which was carried unanimously.

The Dean of Hereford having consented to publish his paper in full at once, those members of the Society who were unable to attend the meeting last Wednesday will have an opportunity of reading it, before the next meeting, when the discussion of it will be resumed.

CIRCULATION OF NEWSPAPERS IN THE UNITED KINGDOM.

In the communication which appeared in the JOURNAL OF THE SOCIETY OF ARTS, on the 1st instant, page 217, it may be remembered it was stated that the increase in the number of penny stamps issued annually to newspapers in the United

Kingdom, from 1837 to 1850, was 30,594,500. This increase was equivalent to 1·15 newspaper for each person in the United Kingdom; the proportion for Great Britain being 1·49 for each person, and for Ireland 36 for every 100 persons. The increase in the number of penny stamps issued to London newspapers was 20,035,455, of which the *Times* had 9,000,000, or nearly one half, being an increase of 9·03 papers for each person in the metropolis; in Manchester the increase was 964,762, or 3·05 for each person, of which increase the *Manchester Guardian* had 453,260; in Liverpool the increase was 789,785, or 2·1 for each person, of which increase the *Liverpool Mercury* had 267,750; in Leeds the increase was 191,000, or 1·11 for each person, of which increase the *Leeds Times* had 160,000; in York the increase was but 11,693, or 0·29 for each person, although the *Yorkshireman* increased 102,000; but this was absorbed by the decrease of other papers; in Birmingham the increase was 67,000, or 0·28 for each person, which was included in the increase of the *Birmingham Journal* of 259,000 stamps, the remainder being absorbed by the decrease in the circulation of other newspapers; in Bristol the increase was 157,750 penny stamps, or 1·14 for each person, of which increase the *Bristol Mercury* had 143,000, making the increase in the number of penny stamps for these places 22,217,445, and leaving 2,356,010 as the increase for the other places in England, containing a population of 13,488,390, being at the rate of 17 papers for every 100 persons. The increase in the number of penny stamps issued to papers in Edinburgh amounted to 1,413,922, or 8·8 papers for each person, of which the *North British Advertiser* had 282,300; the chief increase arose from the establishment of several new papers, and not from the increase of the circulation of the old papers; in Glasgow the increase was 1,372,675, or 4·2 for each person, of which the *Glasgow Herald* had 126,000; but the chief increase was from new papers, of which the *North British Mail* added 229,000; in Aberdeen the increase was 35,135, or 0·48 for each person, of which increase the *Aberdeen Journal* had 37,000; total, 2,821,732, leaving for the other places in Scotland but 207,498, or 9 papers for every 100 persons. The increase in the number of penny stamps issued to newspapers in Dublin during the above period was 1,828,850, or 7·8 papers for each person; of which increase *Saunders' News Letter* had 440,000, the *Freeman's Journal* 330,000, and the *Evening Mail* 45,000; the remainder was principally due to the establishment of new papers, of which the *General Advertiser* had 530,000, the *Nation* 108,500, and the *Tablet* 162,300; in Belfast the increase was 372,932, or 5·09 for each person; of which increase the *Northern Whig* had 227,500; in Cork the increase was 65,666, or 0·8 for each person; of which the *Cork Constitution* had 16,000, leaving only 225,192 as the increase for all the other places in Ireland, being at the rate of 35 papers for every 1,000 persons. This shows, that although the reduction in the Stamp Duty from 3½d. to 1d. had the effect of increasing the circulation of 5d. papers in the great towns and cities, yet they failed to do so in a corresponding degree in the country towns and districts,—showing that much cheaper papers are required for those districts, of an instructive and useful cha-

racter, in the shape of news, and that it is probable that several millions of 1*d.* and 2*d.* newspapers would find a ready circulation where the 5*d.* papers never can reach. The foregoing shows the increase in the circulation of 5*d.* papers during a period of 13 years, in various places in the United Kingdom; but the following statement will show the proportionate circulation of the papers in the various places mentioned as they stood in 1850. The average circulation of newspapers bearing 1*d.* stamps in the United Kingdom was at the rate of 29 papers for every 10 persons, during the year 1850, or about 3 for each person. In England the average for each person was 4 papers; in Scotland, 2·2 for each person; and in Ireland, 0·9 for each person, or 9 papers for every 10 persons during the year. The average issue of newspapers bearing a penny stamp, in the year 1850, was—in London, 22·2 for each person; in York, 13·1 for each person; in Manchester, 6·5 for each person; in Leeds, 5·1 for each person; in Liverpool, 4·2 for each person; in Bristol, 3·8 for each person; and in Birmingham, 2·8 for each person; the aggregate population of these places being 3,432,931, and the number of penny stamps issued during the year 1850 was 54,289,272, or an average of 15·9 for each person. The aggregate population of the other places in England was 13,488,390, and the number of penny stamps issued to newspapers therein was 12,391,627, or 92 stamped papers for every 100 persons during the year. In Wales the average number was 63 stamped papers for every 100 persons, the population being 1,005,833. The number of penny stamps issued to newspapers in Edinburgh was at the rate of 17·2 for each person, the population being 160,302; the number of penny stamps issued to newspapers in Glasgow was at the rate of 7·1 for each person, the population being 329,097; and in Aberdeen the number of stamps was at the rate of 4 for each person, the population being 71,973, leaving the number of stamps issued to newspapers in the other places in Scotland at the rate of 51 stamped papers for every 100 persons, the population being 2,327,460.

The number of penny stamps issued to newspapers in Dublin, during the year 1850, was at the rate of 14·9 for each person; in Belfast at the rate of 8·7 for each person; and in Cork at the rate of 6·3 for each person, the aggregate population of these places being about 387,000, leaving the average for the other places in Ireland at the rate of one stamped paper for every five persons during the year, the population being about 6,300,000.

From the foregoing facts it must appear evident that the inhabitants of the metropolitan cities are very much better supplied with newspapers than the provincial towns or rural districts; and assuming that the metropolitan cities are sufficiently supplied with newspapers, which is very doubtful, it must be clear that the inhabitants of provincial towns and rural districts are very inadequately supplied with newspapers. Even supposing that one half of the newspapers published in London, Liverpool, Manchester, Birmingham, Leeds, Bristol, and York, are distributed over the other places in England, after being read in the cities and towns mentioned, the average would only be increased from 92 papers for every 100 persons, to 293 papers for every 100 persons, which would give less than three papers for each person during

the year. It is unnecessary to enter into the question as to the average number of persons who read each paper, although it is generally assumed that there are in London 10 readers to each newspaper; and supposing the same facilities exist in the provincial towns and districts for reading newspapers, it would then appear that each person in the metropolis had seven times the number of papers to read that each person among four-fifths of the population of England would have in the districts mentioned. It would follow, that if only two-sevenths of the 13,488,390 persons in England above referred to were only half as well supplied with 5*d.* papers as persons residing in London, the other five-sevenths, or 9,634,560 persons, must be wholly unprovided with newspapers, to say nothing of the large number of persons in Scotland and Ireland under similar circumstances, who are, no doubt, likewise deprived of news relating to passing events. Looking at the question in every point of view which the above statistics show, there can be no doubt that several millions of Her Majesty's subjects are left unprovided with news and useful information, which cheap periodicals could supply, if the restrictions with regard to newspapers and advertisements were removed.

It is probable that if the price of newspapers were raised to 1*s.* each, by putting on a 7*d.* or 8*d.* stamp instead of 1*d.* one, that a very large number would be purchased and read as at present by wealthy individuals, and persons engaged in trade; and that if the advertisement duty were raised to 5*s.* or 7*s.* 6*d.* each, it would not totally extinguish advertisements; but the effect would be to greatly reduce the number of papers and of advertisements. Under such a state of things, the great mass of the industrious classes would be deprived of news and other useful information; trade advertisements would disappear from the newspapers, and no doubt considerable dissatisfaction would be the result. The effects of a total repeal of the taxes on knowledge would be, to enable the wealthy and commercial classes to obtain their newspapers and literature at less cost, but to enable the industrious and working-classes to have cheap news, and increased facilities for advertisements which do not at present exist, and never can exist so long as any restriction remains. In order to show the probable deficiency of newspapers in various places in the United Kingdom, by presuming that the publication of twenty-two papers for each person in the metropolis is sufficient for the inhabitants of London, and, therefore, sufficient for every part of the kingdom; the result would be, taking twenty papers as the number for each person during the year, there would be a deficiency of newspapers in Liverpool, Manchester, Birmingham, Leeds, Bristol, and York, of 19,231,705, the present supply being 6,269,817; the deficiency in the other places in England would be 257,376,173. Assuming that only one-third of the number of newspapers published in London would be sufficient for the provincial towns and districts, or seven newspapers for each person during the year, the deficiency to be supplied by cheap newspapers in Liverpool, Manchester, Birmingham, Leeds, Bristol, and York, would be, independent of existing papers, 6,400,000, or rather more than 100 per cent. of the present supply; and for all the other provincial places in England the deficiency to be

supplied by cheap newspapers would be 80,800,000, being 68,500,000 more than the present publication of 5*d.* papers in these districts.

Taking, on the same principle, one-third of the number of papers published in Edinburgh for each person as the average for the other places in Scotland, it would appear that there is not a deficiency in Glasgow; but in Aberdeen there would be a deficiency amounting to 560,000 papers, or double the circulation of stamped papers in 1850; and for the other places in Scotland, a deficiency of 12,000,000 of cheap newspapers, being more than ten times the number published in those places in 1850. Assuming one-third of the number of newspapers for each person in Dublin to be sufficient for the population in the other places in Ireland, there would appear to be no deficiency of newspapers in Cork and Belfast; but for the other places in Ireland there would be a deficiency of 30,000,000 of cheap newspapers, or twenty-five times the number of 4*d.* and 5*d.* papers published in those places in 1850.

According to this estimate, it would appear that a deficiency of cheap newspapers exists in the United Kingdom of 129,200,000, being about 150 per cent. more than the number of penny stamped papers issued in the United Kingdom in 1850. There is one important consideration in this matter with regard to the circulation of newspapers, that in the places where they are freely circulated better order is maintained; and where the deficiency is most apparent, there disorder, outrage, ignorance, and lawless proceedings exist to a proportionate extent. In the country places in England, the deficiency, according to the above estimate, amounts to six and a half times the present supply; in the country places of Scotland, to ten times; and in the country places in Ireland, to twenty-five times the present supply. It is probable that the above estimate of the deficient supply of newspapers in the United Kingdom is considerably within the number required by the population.

One word with regard to the proposal of the Chancellor of the Exchequer to remove the stamp-duty from supplements to newspapers containing advertisements—a measure which has been designated by the *Daily News* as a “huge gift to the *Times*,” and other papers, both in town and country, have repeated the assertion. A very little reflection on this subject will show that “the gift” to papers of smaller circulation than the *Times* is, in reality, much greater than to the *Times* in a commercial point of view, inasmuch as the smaller the circulation of a paper is, the greater will be the profit from advertisements inserted in supplements. For instance, a newspaper having a circulation of 4,000, will have to pay about 16*l.* for the paper of a large supplement, say 4*l.* for machining, 30*l.* for composition, and 25*l.* duty on, say, 1,000 advertisements at 6*d.* each, making together 75*l.* as the cost of the supplement; but a paper having a circulation of 40,000 would have to pay 160*l.* for paper, 20*l.* for machining, 30*l.* for composition, and 25*l.*, as above, for duty on 1,000 advertisements, making together 235*l.* It is therefore evident that the paper of smaller circulation can take advertisements at a less price than the other. The paper with a circulation of 4,000 would make a profit of 25*l.* by charging, on the average, 2*s.* for each advertisement, while the

paper of 40,000 circulation, at that price, would lose 135*l.* on each publication—it would therefore be compelled to charge a higher price, say 5*s.*; the produce would then amount to 250*l.*, and leave a profit of but 15*l.* on ten times the circulation of the former paper. It would seem, that in common fairness the larger paper would be entitled to charge at least three times the price for advertisements that a paper would have but one-tenth of the circulation; and yet, with this increase in the charge, the profit would only amount to 65*l.*

This shows the immense field opened for cheap advertisements and large profits to papers of small circulation; and the folly of newspaper proprietors advocating the retention of even a 6*d.* advertisement duty, which must exclude many poor persons from advertising. There is a field open for the accommodation of 10,000,000 of advertisements in addition to those now inserted in taxed newspapers; but it cannot be occupied until every vestige of stamp-duty on advertisements and supplements is removed. It is therefore the duty of every newspaper to insist on the removal of the advertisement duty; or, in case of its being retained, to levy the same duty on every other mode of advertising.

HOME CORRESPONDENCE.

ON PATENT-RIGHT.

SIR,—The Society of Arts having been mainly instrumental in the investigation which resulted in an alteration of the Patent Laws, for the presumed benefit of Patentees, I have felt rather surprised at the indifference or approval with which opposite ideas were received at the meeting of April 22nd, on the discussion of Mr. Denison's lock.

“Mr. Denison stated that the lock is not patented, as he agrees with the many eminent persons who consider patents an obstruction to science.”

It is quite clear that Mr. Denison, and the “eminent persons” he alludes to, have failed in mastering the first principles of patents, or they would not have imagined them an impediment to science. A patent is for an *art*, the artificial application of some natural principle—not for the *science* or knowledge on which the art may be based. Mr. Watt's patent for his practical improvements in steam-engines never prevented any one from studying the properties of steam.

The Chairman, Mr. John Scott Russell, in summing up, said: “In regard to the Patent Laws he must plead guilty to being the owner of two or three patents; but he fully agreed, that it would be an advantage to the ingenuity of this and every country, if all property in patents were annihilated; and he believed that such a consummation was rapidly approaching. The position of inventors at present compelled them to patent their plans, not so much to prevent others using them, as to secure to themselves the right to do so; for if they neglected to take out a patent for an invention perhaps the next day some one else would, and they might be prevented from using their own discovery. Patents were multiplying so rapidly, that they would shortly be of no service. Their great number would prevent them being of any use as advertisements, and the same cause would destroy the *prestige* at present attaching to them. The time was coming when inventions must stand on their own merits; and those most suited to the wants of the public, and brought forward with the most wisdom,

would carry the day. He concluded by moving a vote of thanks to Mr. Denison and Mr. Mordan for the papers which had been read."

Giving full credit to all these gentlemen for disinterested views in the expression of their opinions, and altogether disagreeing with them, I purpose to set forth the other side of the question. There are two aspects from which to view it. One as the advocate of a race of men who have been large benefactors to society; the other as a dispassionate criticiser of the subject, to discover how, on the whole, the largest amount of good may be made to accrue to the greatest number. Society doubtless considers it a good thing to obtain all it wants as gratuitously as possible, and would be very apt to sacrifice the interests of a small class to attain its object; nor can the small class complain of this, for society has the right to determine whether it will issue premiums or not to quicken discovery; it is a question of bargain between society and a small class endowed with peculiar faculties, and if the small class be exorbitant, society may justly say, like the Yankee, "Upon the whole, I guess I'd rather not trade."

But when the "eminent men" alluded to by Mr. Denison, assume to be "society," the small inventive class stand forth and say, "By what right are these gentlemen set up as judges over us? What manner of men are they? Are they known for any great achievement in original art? Have they ever invented anything largely profitable as a manufacture, and given it gratuitously to the public? Have they written works, and presented the copyright to the community? If they be not of the practically inventive class, they are simply class legislators, willing to tax another class for their own and the public assumed benefit."

This and much more might they allege. They might say, "Mr. Watt was a scientific man, and patented the improved practical steam-engine. Sir David Brewster, after philosophically studying the laws of light, patented the kaleidoscope. Professor Liebig is said to be connected with valuable manure patents. The scientific inventor of gun-cotton also patented its use in the arts. Dalton patented nothing, and was almost starved. Numbers of men, of high reputation and success in material progress, have been patentees:—Arkwright, or those he represented; Heathcote, the elder Brunell, George and Robert Stephenson, and others; Penn, Maudslay, Donkin, and Muntz, of Birmingham; Mackintosh, Hancock, and others, are but representatives of many whose patented interests have best stimulated new manufactures."

Still further might the inventors go in their allegations. They might say, "Show us that these, our would-be judges, have no private or class interests to serve. They are 'eminent men,' land owners, pensioned professors, members of government, engineers; in short, persons holding power: and if there be amongst them lovers of power, covetous men, or ambitious men, it is their interest, according to their views, to keep us in the condition of hewers of wood and drawers of water, and makers of bricks without straw. We may work like the mulatto slave, George, described by Mrs. Stowe, and make inventions they may profit by, and reap the reward in cash and reputation."

But leaving the recrimination of the inventor, smarting under his real or fancied injuries, I proceed to take up the question on its own merits, beginning at the beginning.

In this England of ours, our great boast is our national and individual freedom, which gives to all equal scope, according to their natural talents and energy; so that

the humblest individual *may* rise to be Lord Mayor, or Lord Chancellor, or anything under the Crown. We will not inquire whether incessant exercise of the Christian virtues is a needful ingredient in this progress, but certainly a faculty of acquiring money is; and whether position be attained by more or less of high qualities, it is an essential element in national progress that there should be a free circulation of all the members of society, that there should be an abundantly hopeful spirit, and that every one should have a fair chance of finding a position in which his or her natural aptitude may best fructify. Anything short of this is practical slavery. If children cannot get access to knowledge, they must be slaves; if grown people cannot develop their natural faculties, they must be slaves; and if the rules of society be such that capital only is power, and the means of acquiring capital be excluded from all but the actual possessors, we at once set up hereditary castes, and we shut out the hope of progress, and thus destroy our national energy.

The basis of all material progress is the earth—the great storehouse of the raw material of food and manufactures. If this be all in ignorant hands, there will be little else than wild game and wild men. A step higher, and we have herds of cattle tended by men of skill, who profit by the increase. Still farther on, corn-growers pay rents, wood grows scarce, and mines are opened; proprietors increase in number; mind grows, books are written and promulgated, and copyrights are agreed to—a novel species of property not belonging to the mere earth. But all hand-working mankind are drudges. Suddenly an inventor arises, captures the wind, and forces it to do man's drudgery. Another takes the moving waters; but these depend on locality, and the landowner claims his heavy fee: they are embargoed. Then comes steam, independent of locality; and the grateful world says, "Lo! this inventor has rescued us from drudgery and tyranny, and we will pay him tribute." Grumblers and rebels there were, who would gladly have profited by Mr. Watt's labours without paying him; but the common sense of the community recognized the justice and wisdom of maintaining his rights. From machine power grew up the use of machine tools, and then a host of new conveniences arose, almost without labour. "Men's clothes and food" became abundant; men and women increased; mills grew up, and supplies for the multitude gave more profit than supplies for the few. Patents multiplied, and manufacturers grew rich. People talked of cotton lords, and flax lords, as well as of lords of the soil. And by all this, the mass of the people benefited; for they were better fed, and clothed, and lodged. But their numbers increased; competition did its work, and lowered wages induced misery. Competition in the market induced newer improvements in machinery, and each new improvement became a property, in the form of a new patent. Capital accumulated, means of transit improved; but the mass of the working people could only remain workers, having no means of accumulating capital. The tendency of capital to accumulate in large masses constantly became greater, and every day the difficulty of rising in the world increased, and is increasing. With the accumulation of capital profits lessen, and the door is closer and closer barred to enterprise in existing operations.

With all this there is a tendency in capital to be conservative, to keep out competition. He who owns a cotton mill, with all existing improvements, regards with no favour the propounder of a new mill with still further improvements, who can work cheaper than himself. He dislikes patentees and improvers, and calls

them "schemers," as a reproach. He does not want improvements; they only make him uneasy. A Manchester Yankee, who had risen to opulence by inventions, once said to the writer, "A scheme may be mechanically right, and commercially wrong; and, to say the truth, Sir, manufacturers never make improvements till profits get wiredrawn." There is no doubt that it is the interest of all capitalists who have invested their capital, whether in mills, or ships, or railways, to retard all such improvements as may deteriorate the value of their plant. They would remain stationary if they could, and suffer no one to intrude on their field of action. It has not been an uncommon thing for a mill-owner to buy up and quash a pretended improvement, likely to diminish the value of his own machinery. The mill-owner, with his vested interest in machinery, is not less a protectionist than the land-owner, with his vested interest in land, and to that extent he and the public at large are at issue. He is a capitalist and not an originator, and his cry is, "Great is Diana of the Ephesians." If he had his way, nothing new would be permitted. The possession of wealth would be confined to land-owners, mill-owners, railway-owners, and ship-owners, and their children's children in hereditary succession. We should become a nation of Chinese, and all originality would be at a discount. Or, if permitted, it would only be for the exclusive benefit of the possessors of power.

But, fortunately for the nation, the tendency of capital to increase constantly accumulates a large mass of *floating* capital seeking for employment, and bringing down the rates of profits by competition in existing things. This capital would, if it could, go into new things yielding larger profits. But new things require original minds, and they are not commonly co-existent with the possessor of capital. Moreover, new things require the outlay of capital in experiments. Men will not give their time and money to originate for the benefit of the public, unless they have some security that they shall reap what they have sown. There is but small satisfaction in perfecting an improvement under the consciousness that a hundred rivals are on the watch to secure the profit on its completion, without the smallest risk or outlay. It is the insufficient protection to patentees, and the mass of difficulties in which they may be overwhelmed by litigation, that deter capitalists from embarking in patented improvements. The expense of patents was long considered a hardship to poor men. The exertions of the Society of Arts lowered the price, but did not make sure the protection, or the adjudication between disputants, without heavy cost; and though patents have multiplied enormously for articles of small value, the more important inventions labour under the same difficulties as before.

The right application of the faculties of each individual in a nation, is the source of the highest prosperity. The application of one very common faculty—the business faculty, finds employment in many ways; but it must be busied more or less in the fabrication of matter for food, clothing, and other purposes. The nation that can produce the largest result, with the least amount of human drudgery, must be the most prosperous. For this purpose, it is essential that the originators be encouraged; if not, the nation will become stationary, or recede. Copyright in mind, in the form of printed books, has been granted by the legislature for three generations. The American legislature refused to acknowledge the copyright of foreign authors on their soil, and the result was, that native authors were neglected, because their booksellers could appropriate foreign

labours gratuitously. Authors were consequently few. The American legislature recognizing the mischievous result, if not the injustice, have now given tardy redress, and obliged their booksellers to pay for organization; yet many books are the result of no higher character of mind than material inventions. Some material inventions require a higher character of mind than some books. Why should the book originator be more protected than the originator of material progress? If the patentee be not protected, the inventor will have no security, and will cease to invent.

There are several varieties of invention; some entirely personal, such as acting, printing, engraving, music, vocal and instrumental. For these, the owners do not need protection; they do not depend on any secondary application. Let them be born in what station they will, they rise to eminence, as corks float on water. All the world recognizes their merits. The writer of books, on the contrary, requires a medium—the bookseller and printer. His mental labour may be pirated, and the legislature interferes and gives protection to the writer, in consideration of the advantage of his labour to the public; and this for three generations: and usually a very small outlay is requisite for the author of the book to approach the public; and the successful author can become a capitalist. But the mechanical inventor has commonly a harder task, unless it be for some trifling article of ready sale; he has experiments to make in any case, and his term of protection is but fourteen years. But what if he be the inventor of an important improvement in ship-building? if he be not a protected patentee, what necessity has he for remuneration, supposing his invention to be recognized and adopted? Who will build a new ship on a new plan, and risk all the cost, if his neighbour builders may appropriate it without cost or risk? Or, if it be adopted, what is the likelihood of his being even recognized as the inventor? If he applies to a public company, they will recognize no right but patent right—if even this. What if it be an improvement in railways? will the inventor, if not a patentee, be duly introduced to the public as a national benefactor, and be paid in honour, or will the honour and profit be appropriated elsewhere? What if railway companies set their faces wholly against patentees, and refuse to use their inventions? It is in many cases their interest not to adopt or sanction any new improvements which may involve responsibility in the sacrifice of existing plant. What if the patentee applies to an ambitious man, jealous of all reputation but his own, or that of his class, will he not be contumuously refused? And if the inventor be not a patentee, will not his plans be unscrupulously appropriated when no register secures them? Will not an unscrupulous person in power shut the door against all intruders? Is Mr. Pecksniff's printed market architecture an uncommon case? And can the public, in the long run, really benefit by this confiscation of the inventor's mind? for that, after all, is the question on which the opponents of patents rest the merits of their case.

But it may be alleged, that granting a patent to one individual to-day is an injustice to the individual who may hit on the same invention to-morrow. In answer to this, we shall find that valuable improvements are the results of individual efforts, long and steadily pursued—just as Acts of Parliament are the children, and bear the names of individuals. The invention is not all—there is the working out to follow. Inventions are of two kinds: those resulting from original perceptions of new principles, and the mere contrivances suggested to remedy proven defects in existing things; though many, even of these latter, are important. If, for example, the

nation were spending a large annual sum to attain a certain speed in sea-transit by steam, the inventor who might show a method of saving a million per annum in coal, with increased speed, would surely be entitled to a handsome share in the gain; but if, after attaining success at the expense of many thousand pounds, and unceasing experiments, his neighbours were to come in and throw his whole gain into common stock, it would surely be a great injustice. Even in apparently small things, the man whose chemical skill, and knowledge, and persevering energy, could diminish the cost of food, spread over a whole nation, would be a national benefactor, and would not be overpaid by a large share of the profits. It is certain that people do go on and on in beaten tracks, wasting labour and materials; and it is not till an individual with perceptive faculties points out the evil, and prepares the remedy and energetically enforces attention to it, that improvement takes place,—and this after being denounced as a schemer at the outset. The first lighter of towns by gas died in poverty, but he hastened its application materially.

There is a notion prevalent that patentees are a class of persons who merely catch a floating idea, and embargo it without any service to society, and merely stand in the way of others who are serious workers. This also may be true, but it is not unmixed evil. They have pointed out a useful object to public view; and if their terms be too high for others to work with them, after the lapse of fourteen years it becomes public property.

It may be alleged, that a vast proportion of patents are frivolous. Doubtless, it is so; but the fact that unwise people waste their money has nothing to do with the question, if the small number of earnest producers of valuable inventions, who are benefactors to the community, cannot otherwise be secured against the cupidity of the unscrupulous, whose power or wealth may enable them to grasp the prize, and set the inventor at defiance.

It is notorious that the large capitalist everywhere drives the small one out of the market in all business not requiring peculiar personal skill; and it is only by new and improved processes that the poor and skilful man can extricate himself from his clogs, and rise. Even yet, the patent laws are not perfect. The cheap and rapid adjudication of disputes is needed, and also such an alteration of the law of partnership as will enable the capitalist, large or small, to join himself safely to the inventor to work out newer processes. When this is done, complaints will cease against the grasping tendencies of capitalists, and a new sphere of action will give a fresh development to the national energy, while the circulation of society from the lower to the higher, prevents the existence of that choice species of stagnation of which agricultural labourers have been an unfortunate type.

The evil of patents as regards the public has been the mode of recompensing the inventor with a monopoly. If, when his invention were perfected, the whole community were free to use it at a legal per centage, according to its class, the monopoly would cease; and a given portion of this per centage ought to accrue to the state, to be applied to the purposes of education. A tax collected from new and profitable inventions would be the least objectionable of all taxes, and the most easily collected. It would be an income tax, not from a poor and overburdened business, but from thriving prosperity, and applied to extinguish the sources of poverty. Many there are who will disagree with these views, and many, I trust, who will agree with them. The inventor who beheld his hope of rising in the world cut

away from him, by his faculties being given to the many, might call it a species of one-sided socialism, and claim, that in return, he should be provided with his fair share of the raw materials and other capital of the community as a compensation.

I shall be happy further to discuss this matter in your pages with any opponent, with a view to get at the truth.

I am, Sir, yours,
COSMOS.

PROCEEDINGS OF INSTITUTIONS.

BICESTER.—On Saturday evening, the 16th inst., a lecture was delivered to the members and friends of the Literary Institution, on “*El Dorado*,” by E. Watkin, Esq., of London. In the absence of the President and Vice-president, Mr. Johnson, F.R.A.S., one of the secretaries, was called to the chair. The lecturer was listened to with deep attention by a large audience; and at the close, a vote of thanks was unanimously carried for Mr. Watkin’s gratuitous services. The Chairman, in acknowledging a vote of thanks, stated, that he was happy to inform the members present, that the Institution had recently been taken into union with the Society of Arts; and, after enumerating the benefits which might be expected to flow from such connection, said he trusted they could now look forward to a long career of prosperity and usefulness.

DUNMOW.—On Tuesday evening last, a lecture was delivered at the Town-hall to the members and friends of the Literary and Scientific Institution, by the Rev. J. C. Rook, of Thaxted, “*On Nineveh*.” The subject was illustrated by a large collection of diagrams, and the lecture gave great satisfaction to the audience. A vote of thanks was unanimously accorded to the Rev. J. C. Rook.

RADCLIFFE BRIDGE.—A free lecture to the members of the Radcliffe Bridge and Pilkington Lyceum and Mutual Improvement Society, and the public generally, was delivered on Thursday evening, April 21st, by Dr. W. Hudson, from the Athenaeum, Manchester, “*On education in Science, showing the facilities which every working-man has of learning Science*,” with chemical illustrations. The attendance was numerous, and the lecture was listened to with much attention, so that it is hoped that the advice given by Dr. Hudson will be followed, more particularly under the auspices of institutions like this. A vote of thanks was unanimously accorded to Dr. Hudson.

TO CORRESPONDENTS.

Notice.—Members, and others, who can furnish or obtain original information or suggestions on the subjects included in the Society’s Premium-list, or other topics connected with the Society’s various departments of operation, are invited to communicate the same to the Secretary, in as condensed a form as possible, for the purpose of being either read and discussed at the evening meetings, or inserted in the Society’s weekly Journal. Anonymous letters cannot be attended to. All communications, whether the author’s name is to appear or not, must be accompanied by the writer’s name and address.

Members of the Society who do not receive the *JOURNAL* regularly, are requested to give immediate notice to the Secretary; and, in order to prevent mistakes, they are particularly requested to signify any change which they desire to have made in their address, with as little delay as possible.

MISCELLANEA.

PUBLIC LIBRARIES.—Munich has seventeen public libraries, into every one of which strangers unquestioned may enter, peruse, and depart in peace. Of these institutions the most celebrated are lending libraries. Statistics preach where sermon does not lift its voice. Here are its words. In London, there are, in round numbers, 500,000 volumes accessible to the public, or about an average of 22 volumes to every 100 inhabitants. Dublin, with all its deficiencies, has 59. In Paris, the proportion is 160 volumes to every 100 inhabitants; in Berlin, 182; in Florence, 317; in Copenhagen, 467; in Dresden, 490; in Munich, 780. So that Paris is six times better provided than London; Berlin, seven times; Florence, thirteen times; Copenhagen, nineteen times; Dresden, twenty times; and Munich, thirty-one times.—*Correspondent of the Builder.*

BOOMERANG PROPELLER.—On a second trial of the Boomerang propeller, in the steam-ship *Genoua*, the speed obtained was 10½ knots by the log, the revolutions of the engines being from 66 to 58, a gain of more than one knot per hour on the speed by the common screw.—*Mining Journal.*

NEW YORK EXHIBITION.—A Commission has just been appointed by Government to visit New York, and report upon the Industrial Exhibition shortly to be opened there. The Commissioners named are, the Earl of Ellesmere; Sir Charles Lyell; Charles Wentworth Dilke, Esq.; Joseph Whitworth, Esq.; Professor Wilson; and George Wallis, Esq.

QUEBEC EXHIBITION.—An Industrial Exhibition is intended to be held at Quebec, to be opened on the 17th of May; and selections of the natural productions, and agricultural products and implements, will then be made, and forwarded to New York, to form part of the larger International Exhibition.

EXHIBITION OF PHOTOGRAPHIC PICTURES.—A collection of pictures produced by this art was opened at the Photographic Institution on Wednesday last. Some marked improvements are noticeable in the present exhibition; and many of those points which were thought to be incompatible with the art, are now being arrived at even in this country. M. Martens has some foreign scenes; M. Bresolin, a few fine Venetian views and Italian buildings; M. Flecheron, some Roman views: M. Ferrier is also a contributor: and among English photographers may be named Messrs. Bingham and P. De la Motte.

PARLIAMENTARY REPORTS.

SESSIONAL PRINTED PAPERS.

- Par. No. *Delivered on 21st April.*
 258. Troops, &c. (South Africa)—Returns.
 332. Writs of Certiorari—Return.
 337. Ramsgate Harbour—Sir John Rennie's Report.
 338. Committees, &c. (Ireland)—Tabular Returns.
 Queen's College, Galway—Report of the President.
 Queen's College, Belfast—Ditto.

Delivered on 22nd April.

302. Lighthouse (Guernsey)—Estimate.
 339. Kilmainham Hospital—Copies of Charter, &c.
 360. Arterial Drainage (Ireland)—Copy of Treasury Letter.
 361. Bills—Places of Religious Worship Registration (amended).
 374. "—South Sea and other Annuities Commutation (do.)

Delivered on 23rd and 25th April.

172. Railways—Returns.
 347. Frome Election—Report from Committee.
 348. Waterford Election—Ditto.
 373. Committee of Selection—Sixth Report.
 191. Local Acts—Reports of the Admiralty.
 254. Coal Mines—Return.
 344. Bounty to Recruits—Return.
 349. Guildford Election—Report from Committee.
 350. Rye Election—Ditto.
 351. Wigton Burghs Election—Ditto.
 365. Coinage—Account.
 370. British Spirits—Ditto.
 390. Encumbered Estates (Ireland)—Returns.
 391. Encumbered Estates (Ireland)—Return.
 367. Bill—Taxing Officers, Common Law Business—(Ireland).

Delivered on 26th April.

312. Libraries and Museums—Abstract of Return.
 342. Select Committees—Return.

380. Bills—Sheriff Courts (Scotland), amended.
 388. "—Hackney Carriages (Metropolis).
 392. "—Entails (Scotland).

Delivered on 27th April.

- 203(1). Bridgnorth Election—Index to Minutes of Evidence.
 322. Dartmouth Election—Report from Committee.
 345. Tynemouth Election—Minutes of Evidence.
 346. Newry Election—Report from Committee.
 364. Tobacco—Return.
 371. Exports to Turkey, &c.—Return.
 393. Committee of Selection—Seventh Report.
 397. Railway Acts—Return.

PATENT LAW AMENDMENT ACT, 1852.

APPLICATIONS FOR PATENTS AND PROTECTION ALLOWED.
From Gazette, 22nd April, 1853.

Dated 23rd Nov., 1852.

823. A. E. L. Bellford—Drying furnaces. (A communication.)
Dated 8th March, 1853.

584. S. L. Lister—Machinery for washing wool.

Dated 12th March.

625. N. A. E. Millon and L. Mourne—Treatment of corn and grain, particularly washing, drying, grinding, curing, and preserving them.

Dated 16th March.

656. E. Nickels—Lubricating matters.

Dated 22nd March.

698. S. McCormick—Manufacturing screws, bolts, &c., and machinery for same, &c.

Dated 28th March.

740. G. E. Dering—Preserving animal and vegetable substances.

Dated 29th March.

747. H. L. Corlett—Railway wagons.

Dated 5th April.

815. S. Flanders—Ploughs.

817. W. Piddington—Woven and other fabrics, and machinery for same.

819. T. Carr—Nails and other fastenings, and machinery for same.

821. W. Piddington—Preparation of twine, paper cuttings, &c., for ornaments.

Dated 6th April.

823. F. A. Gatty—Printing on textile fabrics.

825. H. Leachman—Manufacture of iron. (A communication.)

827. W. Radford—Construction of metallic braces, &c., applicable for shipbuilding.

829. W. Johnson—Safety paper. (A communication.)

Dated 7th April.

831. J. F. Heather—Pneumometer.

833. W. Morgan—Paper and cardboard cutting machines.

835. F. W. Mowbray—Preparing and combing wool, &c.

837. W. L. Bryan—Warming and ventilating.

839. R. P. Clark—Machinery for loading and unloading colliers and other ships.

841. L. J. Green—Axletree boxes.

843. W. Fuller—Ice-pails, &c.

Dated 8th April.

844. G. F. Goble—Safety-valves for steam-engines and gas chambers.

846. W. Moseley—New method of railway traction, called a Pony Railway.

847. G. Humphrey—Self-acting safety-valve.

848. A. S. Braden—Apparatus for roasting coffee, &c.

849. J. T. Pratoiel—Machine for doubling, &c., fibrous substances.

850. P. F. Flanagan—Manufacture of hats for yachting, &c.

851. H. O. Robinson—Machinery for crushing sugar-canæs.

852. G. Herbert—Construction and mooring of light-vessels, &c.

853. J. Farrar—Treatment of flax, &c.

854. S. Taylor—Machinery for weaving seamless goods.

Dated 9th April.

855. G. F. Goble—Machinery to be actuated by air or water.

857. H. Taylor—Ornamenting surfaces. (A communication.)

858. A. M. A. Iglesias—Ornamental glass surfaces.

859. W. P. Cresson—Lathes for smoothing surfaces of certain metal wares. (A communication.)

Dated 11th April.

860. J. B. Gibson—Saddlery and harness.

861. J. F. Boake and J. Reily—Signal-posts for railways and apparatus.

862. R. B. Ruggles and L. W. Serrell—Machinery for beating gold, &c.

863. R. and J. Garrard—Improvements in bonnets.

864. W. Urquhart—Manufacture of printers' types, &c.

865. W. R. Palmer—Machines for application of horse power, called "Palmer's Improved Horse Power."
 866. W. R. Palmer—Machines for threshing seeds, &c., called "Palmer's American Seed and Grain Thresher and Winnower."
 867. H. Donald—Machinery for cutting and uniting metals.
 868. W. M. Campbell—Earthenware kilns.
 869. D. Nicoll—Garments and sewing the same.

Dated 12th April.

870. S. Russell and R. M. M' Turk—Metallic handles for cutlery.
 871. H. Blake—Railway wheels.
 872. R. A. Broome—Grinding and pulverizing gums, &c.
 873. A. Turif—Preventing accidents on railways.
 874. H. W. Harman—Steam-engines.
 875. J. Taylor and J. and I. Brown—Manufacture of charred peat.
 876. A. Mondolot—Filling vessels with aerated waters, &c.
 877. D. Edwards—Signals for railways.
 878. T. Greenwood—Evaporating saccharine fluids.
 879. R. G. Pigot—Caltraps for military purposes.
 880. F. F. Verdié—Welding cast-steel, cast-iron, &c.
 881. R. J. Kaye and J. O. Openshaw—Motive power by electro-magnetism.
 882. E. Cunningham—Decoration of furniture, panels, &c.
 883. J. Smith—Suspending carriage-bodies.
 884. A. V. Newton—Steam-boilers, and supplying same with water. (A communication.)

Dated 13th April.

886. N. Clayton and J. Shuttleworth—Portable and locomotive steam-engines.
 888. W. Pearce—Construction of locomotive engines, &c. (A communication.)
 890. J. Noble—Preparing cotton, &c.
 892. F. Burden—Treatings rovings for spinning.
 894. J. Noble—Preparing cotton, &c.

- APPLICATIONS WITH COMPLETE SPECIFICATION FILED.**
 898. M. Robinson—Preventing accidents on railways. 14th April, 1853.
 923. J. Dunning—Construction of coke ovens, 16th April, 1853.
 929. W. W. Stephens—Application of retorts in gas and other ovens, to the process of improving iron and converting it into steel. 18th April, 1853.

WEEKLY LIST OF PATENTS SEALED.

Sealed 22nd April, 1853.

488. Juliana Martin, of Soho-square—Invention of an improved apparatus for artificial hatching.
 505. William Maclay, of Woolwich—Improvements in extinguishing fire in dwellings, factories, and other buildings, and in ships.

Sealed 23rd April.

531. Julian Bernard, of Guildford-street, Russell-square—Improvements in the manufacture of glass.
 532. Richard Archibald Broome, of 166, Fleet-street—Improvements in revolving fire-arms.
 630. Henry Spencer and Edmund Taylor, of Rochdale, Lancashire—Improvements in steam-engines and boilers.
 756. Francis Montgomery Jennings, of Cork—Improvements in preparing flax, hemp, China-grass, and other vegetable fibrous substances.
 996. John Symonds, of Glasshouse-yard, East Smithfield, and George Mouchet, of Battersea—Invention of an improved mode of cleaning or sealing metallic surfaces.
 1015. John Sheringham, of 24, Edwardes-square, Kensington—Improvements in the construction of stove-grates.
 1048. James Bell, of Portobello, N.B.—Improvements in railway chairs.
 307. John Perkins, of Manchester—Improvements in the treatment of certain bituminous mineral substances, and in obtaining products therefrom.
 320. John Whitehouse, sen., and John Whitehouse, jun., of Birmingham—Improvements in the manufacture of knobs for doors and other like uses, part of which improvements is applicable to the manufacture of certain articles of earthenware.
 388. John Bethell, of 8, Parliament-street, Westminster—Improvements in obtaining copper and zinc from their ores. (A communication.)
 522. Edward Duke Moore, of Ranton Abbey, near Eccleshall, Stafford—Invention of an improved mode of treating the extract of malt and hops.

536. Samuel Colt, of Spring-gardens—Invention of an improved construction of blower. (A communication.)
 538. Samuel Colt, of Spring-gardens—Improvements in rotating breech fire-arms. (Partly a communication.)

Sealed 26th April.

520. Claude Mames and Augustin Marion, of Regent-street—Invention of a new kind of damper for moistening paper and stamps.

524. Charles Rowley, of Birmingham—Improvements in nails.

Sealed 27th April.

590. William Petrie, of Woolwich—Improvements in the manufacture of sulphuric acid.
 878. Thomas Charles Medwin, of Blackfriars-road—Improvements in water-gauges, or instruments for indicating the height of water in boilers.

1075. Charles Barlow, of Chancery-lane—Improvements in bleaching, purifying, and concentrating sulphuric acid, parts of which invention are applicable to evaporating other liquids.

47. Charles William Lancaster, of New Bond-street—Invention of an appendage to bullet-moulds.

135. Celestin Malo, of the firm of Malo and Company, of Dunkerque, France—Improvements in steam generators.

138. Peter Rothwell Jackson, of Salford, Lancashire—Improvements in the manufacture of hoops and tyres for railway-wheels and other purposes.

142. Richard Mountford Deeley, of Andman Bank, Stafford—Improvements in the grates of furnaces used in the manufacture of starch.

218. Thomas Symes Prudeaux, of Garden-road, St. John's wood—Improvements in the manufacture of iron.

357. William Ball, of Ilkeston, Derbyshire—Improvements in machinery for producing looped fabrics.

453. John Richard Cochrane, of Glasgow, N.B.—Improvements in the manufacture or production of ornamental or figured fabrics.

458. Reuben Plant, of Brierly-hill, Staffordshire—Improvements in safety-lamps.

459. Robert Milligan, of Harden Mills, Bingley, Yorkshire—Improvements in apparatus for washing slivers of wool.

469. Thomas De la Rue, of Bunhill-row—Improvements in producing ornamental surfaces to paper and other substances.

477. William Symington, of 41, Gracechurch-street—Improvements in preserving milk and other fluids.

493. Charles Tetley, of Bradford, Yorkshire—Improvements in obtaining power by steam and air.

494. Charles Tetley, of Bradford, Yorkshire—Improvements in the manufacture of bobbins.

501. Edward Hammond Bentall, of Heybridge, Essex—Improvements in harrows.

505. Samuel Cunlife Lister, of Manningham, near Bradford, Yorkshire—Invention of heating and making cards.

507. Thornton Littlewood and Charles Littlewood, of Rochdale—Improvements in machinery or apparatus used in the preparation of wool, silk, flax, and mohair to be spun.

512. William Rowett, of Liverpool—Improvements in making paddle-wheels for vessels propelled by motive power, which is called, "The Cylinder Paddle-wheel."

515. Robert Lewis Bolton, of Liverpool—Invention of a new mode of obtaining and using motive power by explosion of gases.

517. Charles Henry Hall, of Liverpool—Invention of an improved apparatus for cooking by gas or vapour.

523. Lewis Jennings, of Fludyer-street, Westminster—Invention of an improved apparatus for regulating the speed of machinery.

535. Samuel Colt, of Spring-gardens—Improvements in rotating breech fire-arms. (Partly a communication.)

537. Samuel Colt, of Spring-gardens—Invention of improved machinery for forging metals. (Partly a communication.)

542. Thomas Crick, of Leicester—Improvements in the manufacture of boots, shoes, clogs, and slippers.

546. George Elliot, of St. Helen's, Lancashire—Improvements in manures.

552. James Boydell, of the Anchor Iron-works, Smethwick, near Birmingham—Improvements in the construction of bedsteads.

585. John Wright, of Camberwell—Improvements in the construction of bedsteads and other frames.

586. Alexander Samuelson, of Hull, Yorkshire—Improvements in the manufacture of bricks and tiles.

587. Frederick William Emerson, of Trerettiffe Chemical-works, Penzance—Improvements in obtaining tin from ores.

WEEKLY LIST OF DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

Date of Registration.	No. in the Register.	Title.	Proprietor's Name.	Address.
April 26	3454	Clack-box and Feed-pipe for Locomotives	John Budge	St. Pancras.